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00-30



March 31, 2000

Mr. Dale Hatfield
Chief – Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Room 7-C155
Washington, DC 20554

Re: **Final Service Outage Report**

Dear Mr. Hatfield:

In accordance with the requirements in CC Docket 91-273, enclosed is the Final Service Disruption Report for the Bell Atlantic service outage that occurred on March 2, 2000 affecting southeastern Pennsylvania and northern Delaware.

Please call me if you have any questions about this report or other service outage issues.

Sincerely,

A handwritten signature in cursive script that reads "Fran Folgner".

Enclosure

cc: R. Kimball
K. Nilsson

BELL ATLANTIC – PENNSYLVANIA
FCC NETWORK DISRUPTION
FINAL SERVICE DISRUPTION REPORT

This Final Service Disruption Report is filed by Bell Atlantic on behalf of its telephone operating company, Bell Atlantic-Pennsylvania (BA-PA), in accordance with Section 63.100 of the Commission's Rules in the Second Report and Order in CC Docket 91-273, 9 FCC Rcd 3911 (1994), as revised by the Order on Reconsideration, released October 30, 1995, 10 FCC Rcd 11764 (1995). Bell Atlantic filed an Initial Report on March 2, 2000 notifying the Commission of an outage that occurred on that day affecting Southeastern Pennsylvania and Northern Delaware.

On the evening of March 1, 2000 a Bell Atlantic fiber crew was dispatched to locate and repair two damaged fiber cables that carried an OC (Optical Carrier) 48 between Pennypacker, PA (PHLAPAPEDS0) and Wilmington, De (WLMGDEWLDS0). The cables were damaged by a contractor on March 1, resulting in an outage that was reported at that time. The Control Centers responsible for coordinating all phases of the restoration were being reorganized and the fiber Team Leader was unable to obtain specific details of the failure and to co-ordinate repair of the fiber cable. At 02:19 AM on March 2, 2000, the fiber crew cut the damaged cable to begin splicing, causing the OC 48 system to fail again, since the protect side was still out of service.

The fiber crew continued to splice the damaged cable, but the age and condition of the fiber extended the restoration. At 07:15 AM, the splicing was complete and the OC 48 restored to service.

Subsequently, on March 3, 2000 at 00:45 AM, the protection side was restored when a bad pointer circuit pack was replaced.

Date of Incident:

Thursday, March 2, 2000

Time of Incident:

02:19 AM

Duration of Outage:

4 Hours, 56 Minutes

Geographic Area Affected:

Southeastern Pennsylvania and Northern Delaware

Estimated Number of Customers Affected:

This outage affected the equivalent of approximately 58,300 access lines.

Type of Services Affected:

This outage affected switched interLATA and intraLATA calls, as well as various private line and Special Access services.

Estimated Number of Blocked Calls:

Bell Atlantic estimates that there were approximately 7533 blocked calls.

Cause of the Incident, Including Name and Type of Equipment Involved and Specific Part(s) of the Network Affected:

Root Cause Analysis:

Direct Cause: Bell Atlantic fiber crew cut the cable to repair a damaged section from the previous day's failure.

Affected Element: OC 48 consisting of 45 T3s.

Outage Cause: Due to the unresolved problem on the protect side, the OC48 could not switch.

Duration Cause: The fiber cable was brittle from age that significantly increased the time for splicing and restoration.

Root Cause Finding:

Failure to follow existing Bell Atlantic Practice was the root cause of this outage. The working fiber should not have been cut for splicing before the activation of the protection circuit.

Methods Used to Restore Service:

The fiber section was repaired and the system moved on to the original working pair.

Current or Proposed Company Practices Related to this Outage:

Bell Atlantic has an internal "Call Before Digging" notification procedure (RNSA-REQ-97-0001) when performing provisioning or maintenance activity on working fiber optic cable.

Network Reliability Council "Best Practices" That Relate To This Incident:

The following recommendation prepared by the Facilities Solution Team of the Network Reliability Steering Committee and endorsed by the NRC in December, 1995 applies to this incident:

Recommendation 9: Provide Physical Diversity on Critical Routes When Justified by Thorough Risk/Value Analysis.

Describe How The NRC Recommendation(s) Could Have Prevented This Outage:

Bell Atlantic did provide diversity for this critical route, however due to an unresolved trouble on the protection circuit the OC 48 was unable to switch.

Steps Taken to Prevent Recurrence:

- Reviewed and reinforced with the Transport Maintenance Team the responsibility of verifying the condition of all systems before any maintenance activity is initiated.
- The NOC and NCC Transition Team has identified the processes, procedures and functions that need to be shared between centers and a process to disseminate the information to the field and other organizations they support and interface with.

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**BELL ATLANTIC
FCC NETWORK DISRUPTION
INITIAL REPORT**

TICKET #: 8FP-YES

1. **DATE AND TIME OF INCIDENT:** 03/02/2000 02:19:00 AM
2. **GEOGRAPHIC AREA AFFECTED:** wilmington, pennypacker and surrounding areas PA
3. **MAXIMUM NUMBER OF CUSTOMERS AFFECTED:** 30,000 +
4. **TYPE OF SERVICES AFFECTED:**
- ☐ EMERGENCY-SERVICE ☒ INTERLATA ☐ OTHER
- ☒ INTRALATA ☐ 800 SERVICES
5. **DURATION OF OUTAGE:** 04:56:00
6. **ESTIMATED NUMBER OF BLOCKED CALLS:** To be determined
- 7A. **TYPE EQUIPMENT:** Fiber - Non Sanet Equipment **VENDOR:**
- 7B. **APPARENT OR KNOWN CAUSE OF INCIDENT:**
Fiber failure
8. **METHOD USED TO RESTORE SERVICE:**
Patched to another pair
9. **STEPS TAKEN TO PREVENT RECURRENCE:**
To be determined at Root Cause Analysis

Pursuant to Section 0.459 (b) of the Commission Rules, and for reason set forth below,
confidentiality is requested for Items:
Reason for confidentiality:

☐ A Request to supplement the showing requested by section 0.459 (b) is hereby made and will be
submitted expeditiously.

Request Supplement:

DATE AND TIME OF REPORT: 03/02/2000 10:51:27 AM

CONTACT AND TELEPHONE #: Marianne Sweeney 973-649-7461

NOTE: Retention period is 6 Years